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Via Email Only to: nwr-stormwater@deg.state.or.us

Stormwater Permitting Officer DEQ Northwest Region Office 700 NE Multnomah St Suite 600 Portland, OR 97232

Re: Public comment for DEQ File # 62231

Dear Sir or Madam:

Siltronic Corporation submits these comments to the above NPDES 1200-Z general stormwater discharge permit application (the "Application") filed December 20, 2017, by Northwest Natural Gas Company ("NWN") for the NW Natural Gasco Property located at 7900 NW Saint Helens Rd, Portland, OR 97210-3671, Multnomah County (the "Site").

INTRODUCTORY STATEMENT

The interplay between environmental regulation and environmental enforcement is complex. Permitting provides industry with predictability necessary for operations, but must be balanced with state and federal governments' interest in limiting the environmental impact of industrial activities. While every Oregon NPDES permit application involves this interplay, Siltronic believes that NWN's Application is particularly significant due to NWN's history of pollution to the Willamette River, and the potential adverse impact of the proposed permitted discharges on the remedy to be implemented at the Portland Harbor Superfund Site ("PHSS").

The Site is located on the Willamette River between River Mile 6 and 7. The PHSS extends from River Mile 1.9 to River Mile 11.8 of the River, so the Site is in the approximate middle of the PHSS. The PHSS was placed on the National Priorities List in December 2000, but it took 16 years for the EPA and industry participants to complete the remedial investigations and analyses necessary for the Record of Decision, which the EPA issued in January 2017. The EPA selected dredging or capping, or both as one of the primary in-river remedies for the portions of the Willamette in front of the NWN and Siltronic sites.

Siltronic is providing comments because it believes that NWN's current discharges, including stormwater discharges, have a significant likelihood to cause or at least contribute to recontamination of the river after the remedy is implemented. Although many remedies would be affected by recontamination, dredging is particularly vulnerable to recontamination due to its temporal limitations. Unlike an ongoing pumping or filtration system, dredging and capping is a

one-time activity designed to remove sufficient contamination to immediately achieve sediment cleanup levels. Recontamination of the upper sediment layers of the dredged areas or dredged and capped areas via constituents released into the Willamette from ongoing upland sources could negate the extremely expensive benefits of the dredging and capping remedy the EPA has selected.

The threat of recontamination is particularly troubling considering the sampling results in Attachment 2 to NWN's Application. Levels of carcinogenic polycyclic aromatic hydrocarbons (PAHs) are worryingly high in the reported samples. PAHs are one of only four "focused" contaminants of concern ("COC") identified by the EPA for the PHSS¹. According to a study conducted by consultant Newfields, the concentrations of PAHs associated with stormwater solids discharged from Outfall WR-107 on the NWN site are hundreds of times higher than the sediment cleanup level established for the PHSS. Newfields reported this finding at a November 2, 2017 meeting attended by EPA, DEQ, ExxonMobil, NWN, Siltronic and other concerned PRPs. Newfields also reported that the highest PAH levels measured in the stormwater solids across the PHSS were associated with the Site.

Given the high levels of COCs at the Site, Siltronic is concerned that the 1200-Z general industrial stormwater permit will not sufficiently regulate NWN's discharges into the Willamette River, an impaired waterway. Federal and state environmental regulators work together to protect water quality standards. Under the Clean Water Act, states are charged with establishing Total Maximum Daily Loads ("TMDLs") for contaminants that can be present in impaired state waterways, and these TMDLs form the basis for permitted effluent levels. However, some TMDLs have not been established for the Lower Willamette River. As a result, NPDES permits like the 1200-Z general stormwater permit at issue are based on other standards that are not as rigorous in protecting the public health and environment against degradation of water quality.

Siltronic urges DEQ to carefully consider the implications of issuing a general stormwater permit to a company with a decades-long history of discharging contaminants to the Willamette River before that company demonstrates that the permitted discharges will not contribute to exceedances of Oregon's water quality standards.

SILTRONIC'S INTERESTS MAY BE IMPLICATED BY NWN'S PERMIT APPLICATION

Siltronic has an interest in the NWN Application because Siltronic is located adjacent to and upstream of the Site. With respect to in-river work under the jurisdiction of the EPA, Siltronic and NWN jointly entered into an Administrative Order on Consent in 2009 for work designing a remedy for the remediation of the sediments and a portion of the riverbank and adjacent offshore areas of the two properties (the "2009 Joint Order").²

¹ The other focused COCs are PCBs, dioxins and furans and DDT and related products. ROD at p. 19.

² EPA Docket No. 10-2009-0255

Because Siltronic is adjacent to NWN on the Willamette River and is a party with NWN to a joint order involving design of an in-river remedy for the area offshore of both companies' property, Siltronic carefully monitors and in some cases is involved in the regulatory status of and environmental activities on the Site. Siltronic was therefore surprised to learn in the November 2, 2017, meeting with EPA and DEQ that NWN's stormwater outfall WR-107 was discharging high levels of contaminants, including PAHs, into the Portland Harbor, and that these ongoing discharges were occurring without a state or federal permit.

RELEVANT FACTUAL BACKGROUND

NWN conducted manufacturing operations at the Site under the name Portland Gas & Coke ("PG&C") from 1913 to 1958 when it changed its name to Northwest Natural Gas Company. PG&C built a manufactured gasification plant on the site in 1913, using primarily oil as a feedstock.³ However, NWN conducted many other industrial activities on the Site included refining, coking, fuel oil production and chemical manufacturing. These activities occurred on the site from 1913 to 1957, at which time NWN converted operations to natural gas. These activities were substantial in scope and produced huge quantities of finished products⁴ in addition to manufactured gas. For example, the plant produced 5,000,000 gallons of light oil products in 1951 alone, and 14 tons of coke per year. *Id*.

Plans of the historical plant indicate that significant portions of the plant site were dedicated to these refining and chemical manufacturing activities. In fact, in 1941, NWN constructed an entire chemical manufacturing plant for the production of toluol, xylol and solvent naptha.⁵ Other refining activities resulted in the production of motor fuel, creosote, benzene and tar distillates.⁶

NWN's Stormwater Pollution Control Plan ("SWPCP") indicates that contaminants associated with . these non-MGP activities are present on the site, and that stormwater exposure to various historic contaminants is ongoing. SWPCP at Section 2.6.2 ("Site surface and subsurface soil investigations have found that the highest concentrations of volatile organic compounds (primarily benzene, toluene, ethylbenzene, and xylene), PAHs, and total petroleum hydrocarbons, as well as MGP by-products such as oil and tar, are located in the former tar pond, Koppers, and LNG areas of the Site and are generally associated with Subbasins B, A, and D/E, respectively (Figure 2-2)).")

These non-MGP activities may fall within the definition of "industrial activities" under the NPDES permitting regulations and the presence of materials from these former industrial

³ Hull and Kohlhoff, 1952. Oil Gas Manufacture, a Staff-Industry Collaborative Report, Industrial and Engineering Chemistry, May issue at pp. 936-948.

⁴ NWN 104(e) Response at pp. 74, 79-80.

⁵ NWN 104(e) response at pp. 79-80.

⁶ Hull and Kohlhoff at p. 946.

activities on the site to which stormwater is exposed may have necessitated a NPDES permit for the Site long before the DEQ issued the 2017 1200-Z general permit. 40 CFR 122.26(b)(14).

COMMENTS

Comment 1: The level of some PAH and other pollutants in the NWN outfall exceeds the reference concentrations applicable to the 1200-Z stormwater permit NWN seeks.

The level of several carcinogenic PAH pollutants NWN reported in its permit application exceed the reference concentrations set out in the permit cover letter for the 1200-Z stormwater permit. The reference concentrations "reflect the approved acute aquatic life criterion for the pollutant when applicable. If there is not an acute criterion for the pollutant, DEQ or agent will use an applicable chronic criterion. If there is not a chronic criterion for the pollutant, DEQ or agent will use an applicable human health criterion." Permit at p. 22. These criteria are set out in OAR 340-041-8330 in Tables 30, 31 and 40, and "[t]he permit registrant must not cause or contribute to a violation of instream water quality standards as established in OAR 340-041."

NWN reports stormwater analytical results that exceed reference concentrations for PAHs benzo(a)anthracene, benzo(a)pyrene, benzo(b)flouranthene, chrysene and indeno(1,2,3-cd)pyrene. NWN Application at Attachment 2. All of these pollutants are listed as carcinogens in DEQ's Human Health Water Quality Criteria for Toxic Pollutants. Table 40, OAR 340-041-8033.

In addition, NWN's stormwater data indicates exceedances in the permit benchmarks for TSS and zinc and the reference concentration for cyanide.

Comment 2: The reference concentrations for several carcinogenic PAHs are set by DEQ at levels 1000 times the applicable Human Health Criteria levels and the EPA's surface water cleanup levels for the PHSS. How are these reference concentrations in stormwater entering the Portland Harbor reconciled with EPA's required clean up criteria⁸ to which the PHSS parties will be held in demonstrating remedy effectiveness?

⁷ PennEnvironment v. PPG Industries, Inc., 127 F.3d 336 (W.D. Penn. 2015) (finding PPG was required to obtain an NPDES stormwater permit for stormwater discharges associated with historical waste that was generated elsewhere and thereafter placed on the site, because the former activity producing the waste was an "industrial activity" under 40 CFR § 122.26(b)(14).)

⁸ Portland Harbor Record of Decision, Appendix II Table 17.

While many of the reference concentrations in the permit cover letter are the same as in the water quality standards set out in OAR-340-041, 9 the reference concentrations are orders of magnitude above the levels established for the PAHs referenced in Comment 1 of this letter and other pollutants. The human health criteria set for the carcinogens benzo(a)anthracene, benzo(a)pyrene, benzo(b)flouranthene, chrysene, benzo(k)flouranthene, dibenzo(a)anthracene and indeno(1, 2, 3-cd)pyrene are 0.0018 $\mu g/L$, which equals 0.0000018 mg/L. Yet the reference concentration set by the general permit is 0.001 mg/L (or 1 $\mu g/L$) for these pollutants. Thus, it is not clear that the proposed general permit for NWN will provide the source control necessary for the PHSS remedy.

Comment 3: The subject application does not satisfy the requirements for a general 1200-Z permit.

The 2017 1200-Z permit limits the coverage of the general permit under the conditions of NWN's application:

A new discharger to an impaired water without a Total Maximum Daily Load... must meet one of the following conditions to obtain coverage under this permit:

- i. Prevent all pollutants for which the waterbody is impaired from exposure to stormwater and document in the Stormwater Pollution Control Plan (SWPCP) procedures taken to prevent exposure onsite; or
- ii. Document in SWPCP that the pollutants for which the waterbody is impaired are not present at the site; or
- iii. Provide data and other technical information that demonstrates that the discharge is not expected to cause or contribute to an exceedance of the water quality standard for which the waterbody is impaired at the point of discharge to the waterbody if the pollutants for which the waterbody is impaired are likely to be present at the site and DEQ has not issued a TMDL for the pollutant(s).
- iv. If a new discharger is unable to meet the above condition, discharge must cease; or
- v. Obtain coverage under an individual permit.

 $^{^9}$ Compare, for example, DDT levels in the permit cover letter of 0.0011 mg/L with the Acute Criterion for DDT in Table 30 of OAR 340-041-8033 of 1.1 $\mu g/L$, Acute Criterion chlordane levels of 2.4 $\mu g/L$ in Table 30 with the 0.0024 mg/L in the permit cover letter.

General Permit, National Pollutant Discharge Elimination System, Stormwater Discharge Permit at p. 5.

NWN's permit application on its face disqualifies NWN from all of the three criteria:

i. NWN's permit application indicates that soil contaminated with a pollutant for which the Portland Harbor is impaired are exposed to stormwater at the site:

2.6.2 Potential Pollutants Associated with Former Site Activities

There are historical materials remaining on site from former site activities, as discussed in Section 2.5.2. Some materials are present in surface soil that have the potential to come into contact with stormwater. Areas of known historical contamination are shown in Figure 2-2 and summarized in the following sections.

Site surface and subsurface soil investigations have found that the highest concentrations of volatile organic compounds (primarily benzene, toluene, ethylbenzene, and xylene), PAHs, and total petroleum hydrocarbons, as well as MGP by-products such as oil and tar, are located in the former tar pond, Koppers, and LNG areas of the Site and are generally associated with Subbasins B, A, and D/E, respectively (Figure 2-2). Elevated cyanide concentrations are found in the area of the former spent oxide pile on the largely undeveloped north end of the Site in Subbasin B.

. . .

Data characterizing areas of significant materials remaining on site from previous operations are presented in the 2007 Remedial Investigation Report prepared by Hahn and Associates, Inc. (HAI 2007) and the DEQ-approved Human Health and Ecological Risk Assessment Report (Anchor QEA 2014). A Site feasibility study is currently underway as discussed in Section 2.5.1 to support DEQ selection of a final cleanup for the Site.

SWPCP at p. 13 (emphasis added). NWN's SWPCP does not contain "procedures taken to prevent exposure on-site." NWN only refers to a feasibility study that may or may not lead to prevention of the exposure. Thus, NWN cannot demonstrate that it meets the first criterion.

ii. NWN's permit application indicates that pollutants for which the Portland Harbor are impaired are present at the site:

Of these impairment pollutants, PAHs, cyanide, and metals (copper, iron, lead, mercury) are contaminants of concern in one or more media on the Gasco property, based on the results of the

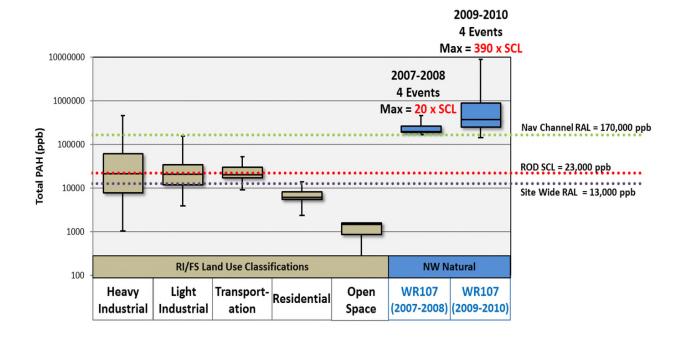
Human Health and Ecological Risk Assessment Report (Anchor QEA 2014), and are therefore potential contaminants of concern in stormwater.

SWPCP at p. 7. Thus, on its face, the Application does not satisfy the second criterion.

iii. NWN's permit application does not provide data or other technical information demonstrating that the discharge under the general permit is not expected to cause or contribute to an exceedance of the water quality standard for which the waterbody is impaired. Instead, the permit application contains data establishing that the discharges will cause or contribute to an exceedance one or more of the water quality standards.

As discussed in Comment 1, the measured levels of contaminants in the Outfall WR-107 stormwater discharges exceed both benchmark and reference concentrations for the permit, which DEQ has set to meet State-promulgated water quality standards ("WQS") in accordance with requirements imposed by the Clean Water Act. Permit application, Attachment 2.

NWN's discharges of PAHs into the Willamette River are believed to be the highest in the entire Harbor, according to calculations made by environmental consultant Newfields using stormwater solids. The chart below illustrates how extreme the levels of PAH are from Outfall WR-107 as compared to various water standards imposed by the Record of Decision for the Portland Harbor Superfund Site. The use of stormwater solids specifically addressed the potential for sediment recontamination from the NWN stormwater.



Comment 4: NWN may have been previously required to obtain an NPDES permit because former industrial activities conducted at the Site may have exposed stormwater to significant materials remaining on the site.

A stormwater permit is required when former industrial activities left significant materials remaining on the site, and stormwater is exposed to those materials. 40 CFR 122.26(b)(14).

NWN claims in its permit application that changes to the 1200-Z form made in 2017 necessitated its application for a permit because the new permit form included "former activities that resulted in significant materials... remaining on site.". SWPCP at p. 1. If these former activities were "industrial activities" with an SIC code included in Table 1 to the 1200-Z permit, (derived from 40 CFR § 122.26(b)(14)(i)-(xi)), then an NPDES permit may have been required for stormwater discharges beginning years ago..

Many of the processes formerly conducted on the NWN site appear to be "industrial activities" under 40 CFR 122.26(b)(14). For example, the production of the millions of gallons of fuel oils at the Site might be assigned SIC code 28 or 29. 40 CFR § 122.26(b)(14)(ii). NWN manufactured benzol for the chemical industry, an activity covered by SIC code 28 or 29. NWN manufactured and sold toluol, xylene and solvent naptha, activities covered by SIC code 28. *Id*.

The SWPCP indicates that historical material from these former non-MGP activities are present in surface soil that has the potential to come into contact with stormwater. "Site surface and subsurface soil investigations have found that the highest concentrations of volatile organic compounds (primarily benzene, toluene, ethylbenzene, and xylene), PAHs, and total petroleum hydrocarbons, as well as MGP by-products such as oil and tar, are located in the former tar pond, Koppers, and LNG areas of the Site and are generally associated with Subbasins B, A, and D/E, respectively (Figure 2-2))."). SWPCP at p. 13. NWN also indicates that these . wastes are located in the subbasins for which NWN seeks a stormwater permit. *Id*.

Comment 5: The DEQ should consider whether NWN should be required to apply for an individual permit to ensure that its stormwater discharges are not causing or contributing to a violation of water quality standards.

Section 4(c) of the 1200-Z permit allows the DEQ or its agent to require the applicant to obtain coverage under an individual permit if information in the application or other sources indicate that the discharge is causing or contributing to a violation of water quality standards. As noted in Comments 1 and 2, NWN's reported discharges exceed certain permit benchmarks and reference concentrations, some of which are themselves 1,000 times higher than the applicable Oregon water quality standards. Thus, it may be more protective of water quality standards to require NWN to submit an individual permit application in which it will required to provide more details concerning its discharges and their effect on the Willamette River.

¹⁰ NWN 104(e) Response at pp. 80.

DEQ also has grounds for requiring NWN to apply for an individual permit because NWN's discharges are a significant contributor of pollution. OAR 340-045-0033.¹¹

Comment 6: Water from Sub-basin E is discharged to the Willamette under a separate permit.

NWN's SWPCP states in Section 2.3 Receiving Water that "[w]ith the exception of Subbasin E and a small building rooftop on the NW Natural Mixing Station area, stormwater runoff from the Site discharges to the Willamette River via Outfall 107, which is located near river mile ("RM") 6.3."

This text implies that Subbasin E does not discharge to the Willamette River. This is not accurate. Stormwater runoff from Subbasin E (the LNG containment basin) is pumped to the Main Groundwater Treatment Plant, and subsequently discharged to the Willamette River via Outfall 001 under NPDES Permit number 103061. Siltronic suggests that this language be revised to clarify that stormwater from Subbasin E is discharged to the Willamette River via the Groundwater Treatment Plant.

Comment 7: Locations of overland flow into the Willamette are not indicated in Figure 2-1.

NWN's SWPCP states that "[t]here are several locations along the site shoreline where overland flows have been observed discharging over the top of the bank during heavy rain events. These discharge locations are shown in Figure 2-1." SWPCP at p. 8.

Siltronic notes that these areas are not identified in Figure 2-1. Figure 2-1 shows a number of "stormwater monitoring locations" along the site shore line, but does not confirm that these monitoring locations correspond to the areas of overland flow. Siltronic suggests that Figure 2-1 be revised to clarify the location of these areas of overland flow.

CONCLUSION

Siltronic encourages DEQ to take time in reviewing NWN's permit application to ensure the issuance of the requested permit would be protective of the environment. NWN has applied for a permit, but granting of the permit should be delayed and/or conditioned upon a demonstration that implementation of a stormwater source control plan controls discharges from

¹¹ (c) The grounds for requiring an individual permit include the following:

⁽A) The discharge or activity is a significant contributor of pollution or creates other environmental problems;

⁽B) The permittee failed to comply with, or is not currently in compliance with, the terms and conditions of the general permit, submitted false information, or the permittee is in violation of any applicable law. . . .

the site so that the discharges are not a continuing source of COCs to the PHSS, especially not while the available data show that the discharges are a continuing source. Approving ongoing discharges may allow for recontamination of the dredging and capping work which is the focus of the design effort of the 2009 Joint Order with EPA and with the overall remedy contemplated in the EPA's Record of Decision for the Site. The DEQ's Memorandum of Understanding with the EPA has allocated the control of upland sources to prevent recontamination of the river to DEQ. Siltronic respectfully requests that the DEQ consider whether granting a discharge permit to NWN that would allow it to continue discharges of contaminants, including focused COCs at the PHSS, is in accord with DEQ's environmental standards.

Sincerely,

Ilene M. Munk

cc: Sean Sheldrake, EPA (via email only)

Plene Tr. Musk

Lori Cora, EPA (via email only)

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